IN THE SPECIFICATION:

On page 9, beginning with the second paragraph, please amend the following paragraphs as follows:

Fig. 1 ~~illustrates schematically~~ is a perspective view of a tape data storage cartridge having an embedded read/write memory accessible by means of a transponder unit within the cartridge, as is known in the prior art;

Fig. 2 ~~illustrates schematically~~ is a partially schematic and partially perspective view of an installation of a second data storage media reader and labeling device in an automated data storage medium library having a rack and shelf arrangement accessible by a computer controlled robotic arm, according to a ~~second~~ specific embodiment of the present invention;

Fig. 3 ~~illustrates schematically in greater detail,~~ is a perspective view of the ~~reader-labeling~~ reader and labeling device illustrated in Fig. 2;

Fig. 4 ~~illustrates schematically~~ is a flow diagram of a control process ~~operated in~~ performed by the reader and labeling device ~~by means of a set of command sequences~~ of Fig. 3;

Figs. 5A to 5G ~~illustrates schematically~~ are illustrations of displays of predetermined selected data items read from the data storage cartridge of Fig. 1, and which appear on the display screen of the ~~first~~ reader-printer device of Fig. 3;

Fig. 6 ~~illustrates schematically an example of a~~ is an illustration of an exemplary layout of a label printed by the ~~reader-printer~~ read and labeling device of Fig. 3; and

Fig. 7 ~~illustrates the~~ is a perspective view of a second ~~reader-labeling~~ read and labeling device used in stand alone context in a ~~purpose designed~~ casing having a power supply

Page 12, amend the first full paragraph with the following:

--Referring to Fig. 2 herein there is illustrated schematically a specific embodiment of cartridge reader and labeling device 200 installed in situ in an automated data storage cartridge library comprising a shelf or rack 201, having a plurality of locations for storing a plurality of tape data storage cartridges; an automatic robotic arm 202 operable to select and access individual tape data storage cartridges, the robotic arm 202 travelling along a substantially linear track 203, the arm capable of moving in vertical and first and second lateral directions and being capable of removing tape cartridges from their location, physically transporting them to reader and labeling device 200, inserting and extracting the cartridges from the reader and labeling device 200 and returning them to their storage locations. The second reader and labelling device interfaces with an external computer 204 having a processor, and/or an external printer 205.--

Beginning with the first full paragraph on page 13 and continuing to page 17, line 10, please amend as follows:

The processor~~,~~ of reader 200 has a relatively small amount of separate memory of the order of 1 MByte or less, and is limited practically by the smallest size of memory chip commercially available. Alternatively, the processor may be constructed integrally with memory area on a same chip, for example a known Power PC® chip. In the best mode, to achieve compact size and ease of manufacture, the components are as integrated as possible with the processor, and preferably include a built-in operating system in read only memory ROM, on a same chip as the processor.

An aerial and receiver are used to receive data from the memory device ~~300~~ 101 of the cartridge~~,~~ 100 which uses an electrically erasable programmable read only memory (EEPROM) as read/write memory area. With the data storage cartridge 100 inserted in the reader device~~,~~ 200 the aerial, of the memory device~~,~~ 101 forms a ~~contact less~~ contactless interface with the aerial of the reader device using an inductive coupling scheme using a magnetic field to transmit data to the receiver~~304~~ of reader device 200. In the best mode, the protocol used to transmit information by the inductive coupling scheme is known as the MIFARE ® system developed by

Phillips/Mikron of the type presently employed in "Smart" credit card technology for use in personal banking applications and which is known in the art. Advantages and features of this system as used by the first embodiment include a high reliability, an operating frequency of 13.56 MHz, and an anti-collision protocol, which provides an ability to handle several transponders in close proximity without interference.

The aerial of the reader and labeling device 200 is positioned such that when a tape cartridge 100 having an aerial is positioned in the cartridge receiving ~~means~~ port 301 of the reader device 200, the two aerials are positioned a distance less than or equal to 20 mm from each other, so that inductive coupling can occur between the two aerials. Over such a range this yields coupling factors between aerials of the order 1 to 10% and transmission speeds of the order 100 Kbps between the aerials. The receiver of the reader and labeling device 200 transmits an inductive signal which is received by the transponder of the tape cartridge 100, and which powers the transponder associated with memory storage device 101 in the tape cartridge, such that the transponder is able to emit signals describing the content of the memory storage ~~area~~ device 101 across an air gap between the two aerials, which is received by receiver. Alternatively, transmission of data signals between the memory device 101 and the reader-labeling device 200 may be within the infra-red range of frequencies.

Data read from the memory device ~~300~~ 101 in this manner is written via the processor ~~305~~ of reader and labeling device 200 to programmable random access memory of device 200, (RAM), where a copy of all read data is maintained. Data stored in the RAM is displayed on the display screen 302 or is accessed via the external processor of computer 204 using the control interface of device 200.

Writeable, erasable and re-writeable labels may be directly provided on the tape data storage cartridges 100 as supplied. Within casing 300, there is provided an internal printing device, which is configured for printing directly onto a label on a tape data storage cartridge, ~~when~~ while the tape data storage cartridge 100 is located within the port 301.

Referring to Fig. 4 herein, a first mode of operation of the reader- labeling device within

the context of the automatic library system ~~will~~ is now ~~be~~ described. In use, the reader device 200 may be inaccessible to a user. The robotic arm 202 may be controlled by ~~it's~~ its own dedicated control systems to select and access a tape cartridge 100 from a receptacle of rack 201, as is conventionally known in the prior art. However, in the first mode of operation, the act of the robotic arm 202 placing a tape data storage cartridge 201 into the cartridge slot or port 301 of cartridge reader 200 activates a sensor internal to the cartridge receiving slot of the card reader which generates a signal to initiate a series of steps for printing label information directly to a writeable label portion of the tape data storage cartridge. The processor in reader 200 operates a series of control steps 400 to 406. A first mode of operation will now be described. The robot arm places a tape data cartridge 100 into the receiving port 301 of the reader and labeling device 200, thereby locating the cartridge firmly in the device in a position where the transponder memory device of the cartridge lies in close physical proximity to the aerial and receiver of the reader and labeling device. The processor under control of operating system stored in the ROM of device 200 operates in an initial state 400, from which the cartridge port is periodically polled in step 401. All transponders within the operating range return a 10 byte alpha-numeric serial number. If no memory device 100 is detected in the port 301 in step 402, the cartridge port is presumed empty, and the processor of device 200 idles through the initial state, and continues to poll the cartridge port in step 401. The cartridge slot 301 is presumed empty if no serial number is returned. Consequently an external detector device incorporated in the cartridge port 301 of the reader device 200 may be polled in step 403 to check whether a cartridge is inserted into the port. If no cartridge is detected, the processor of device 200 returns to initial state 400, continuously polling the cartridge slot in step 401 and/or polling the detector in step 403. If a memory 100 device is detected in slot 301 in steps 403 or 401, the processor of reader 200 enters a memory device detected state 404 from which the processor reads data received by the receiver via the aerial. The receiver continuously transmits ~~a~~ power ~~signal~~ to the transponder in the tape cartridge in order to ~~allow~~ cause the transponder to transmit ~~signals~~ through the aerial signals containing data concerning the information stored on the read/write memory device 100. Transmission of the power ~~signal~~ across the air gap by the aerial may be dependent upon the sensor within the reader and labeling device casing being activated by insertion of a tape data storage cartridge.

In step 406, data read from the memory device 100 through the receiver is directed by the processor of device 200 into the random access memory of device 200. Data can be selected from the random access memory in step 407 for display on the display 302 of device 200 in step 409. Display of data from the RAM is accessed through operation of a menu system in step 410. Initially, predetermined data, for example a serial number of the cartridge which has been read from the memory device ~~may be~~ is displayed on the display device 302.

Referring to Figs. 5 herein, there are shown displays which may occur on the display 302 of the reader labeling device 200 in the first mode of operation. Referring to Fig. 5A herein, there is illustrated schematically an example of information displayed on a display device 302, the information comprising a serial number of a tape cartridge. Upper and lower scroll icons 500, 501 may appear on the display, giving a visual indication to the operator that to access further items of data, the upper and lower scroll buttons of the keypad 303 need to be activated. In step 410 a user may enter keypad entries, for example pressing a scroll button which scrolls through display items as illustrated in Figs. 5B to 5G herein under control of the operating system stored in the ROM of the reader labeling device 200, in the menu system. The operating system stored in the ROM is specifically configured from a knowledge of the format and layout of the information items stored as data in the memory device of the cartridge. By scrolling through the menu, by operating the keypad scroll buttons, display of the serial number of the tape, the date the tape was last used, an amount of memory remaining on the tape, names of back up sessions stored on the tape e.g. "Full Backup Monday 3/8/98", a number of times the tape has been used, a number of errors on the tape and an option to print a label containing a predetermined set of information items describing data stored on the tape may be accessed. If, in response to a 'print label' display as illustrated in Fig 5G, a key on the keypad 303 is pressed, then in step 409, the processor sends a signal to the printer, along with signals describing the information to be printed on the label, which activates the printer to print a label. The label characteristics may be determined by user input via the menu system 409. Characteristics include a chosen language set, font size and type, and in this way allow the user to customise the label as necessary. In step 407, data is selected from random access memory, and is directly printed to a writeable medium on the tape data cartridge in step 408. Printing is direct to the cartridge and printing may be activated by a sensor triggered on insertion of the tape cartridge to the cartridge port.